

**Plan Check Requirements for:
FLAMMABLE LIQUID STORAGE ROOM**
(Update—4/99)

The Fire and Environmental Protection Division of the Mountain View Fire Department (650-903-6378) will review your submitted plans using this plan check guideline.

Where appropriate, enter below the page number of your submitted plans where the item asked for is indicated and highlight the item in your plans. Include brochures, manufacturer's cut sheets, and calculations with the plans when asked for.

If all the required information asked for is included in your plans or attachments, they can be reviewed and approved by the Fire and Environmental Protection Division as quickly as five working days.

Facility Name: _____ **Address:** _____

Architect Name: _____ **Phone:** _____ **PC#:** _____ **Date:** _____

Applies To: Storage of flammable/combustible liquids inside buildings in amounts exceeding the table below.

1) If the quantities of stored flammable/combustible liquids exceeds the exempt amounts below, continue with this check sheet (UFC 7902.5.11.1):

| <u>Type of Liquid</u> | <u>Storage Condition</u> | <u>Exempt Amount</u> |
|-----------------------|--------------------------------------|----------------------|
| Flammable I-A | No Protection | 30 gallons |
| Flammable I-A | Sprinklered Bldg. or Storage Cabinet | 60 gallons |
| Flammable I-A | Sprinklered Bldg. & Storage Cabinet | 120 gallons |
| Flammable I-B | No Protection | 60 gallons |
| Flammable I-B | Sprinklered Bldg. or Storage Cabinet | 120 gallons |
| Flammable I-B | Sprinklered Bldg. & Storage Cabinet | 240 gallons |
| Flammable I-C | No Protection | 90 gallons |
| Flammable I-C | Sprinklered Bldg. or Storage Cabinet | 180 gallons |
| Flammable I-C | Sprinklered Bldg. & Storage Cabinet | 360 gallons |
| Combination IA-1C | No Protection | 120 gallons |
| Combination IA-1C | Sprinklered Bldg. or Storage Cabinet | 240 gallons |
| Combination IA-1C | Sprinklered Bldg. & Storage Cabinet | 480 gallons |
| Combustible II | No Protection | 120 gallons |
| Combustible II | Sprinklered Bldg. or Storage Cabinet | 240 gallons |
| Combustible II | Sprinklered Bldg. & Storage Cabinet | 480 gallons |

| <u>Type of Liquid</u> | <u>Storage Condition</u> | <u>Exempt Amount</u> |
|-----------------------|--------------------------------------|----------------------|
| Combustible III-A | No Protection | 330 gallons |
| Combustible III-A | Sprinklered Bldg. or Storage Cabinet | 660 gallons |
| Combustible III-A | Sprinklered Bldg. & Storage Cabinet | 1,320 gallons |

- 2) Storage shall be arranged in piles or racks in accordance with tables 7902.5-D & 7905.5-E (UFC 7902.5.11.2.1) *Indicate the storage height, and maximum quantity per pile on the plans.* Plan page number: _____.
- 3) Piles shall be separated from each other by at least 4 feet. Aisles shall be provided so that all containers are 12' or less from an aisle (UFC 7902.5.11.2.3). *Indicate the pile width and show dimensions on the plans.* Plan page number: _____.
- 4) Where the storage of liquids is on racks, a minimum 4' wide aisle shall be provided between adjacent rows of racks and adjacent storage of liquids. Main aisles shall be a minimum of 8' wide. (UFC 7902.5.11.2.3). *Indicate the aisle widths and dimensions on the plans.* Plan page number: _____.
- 5) Additional aisles shall be provided for access to doors, required window and ventilation openings, standpipe connections, mechanical equipment, and switches. Such aisles shall be at least 3' wide (UFC 7902.5.11.2.3). *Indicate the locations of these items and the aisle dimensions between each of them on the plans.* Plan page number: _____.
- 6) Containers and piles shall be adequately separated by pallets or dunnage to provide stability and prevent excessive stress to container walls. Shelving and racks shall be made of non-combustible construction or wood not less than 1 inch thick. (UFC 7902.5.11.2.4). *Indicate how containers/piles will be stabilized and supported.* Plan page number: _____.
- 7) Mechanical exhaust ventilation shall be provided at a rate of not less than 1 cu ft/min/square ft of floor area. (UFC 7902.5.11.4). *Indicate the exhaust rate and show the calculations on the plans.* Plan page number: _____.
- 8) A manual exhaust ventilation shutoff shall be provided outside the room adjacent to the access door made of break-glass and labeled "Ventilation System Emergency Shutoff". (UFC 7902.5.11.4). *Show the location of the shutoff and electrical schematics on how it will shut down the exhaust.* Plan page number: _____.
- 9) Exhaust ventilation shall be taken from the ceiling or floor, depending on the density of the vapors produced. (UFC 7902.5.11.4). *Indicate the location of the exhaust ventilation.* Plan page number: _____.
- 10) The location of both exhaust and inlet air openings shall be arranged to provide air movement across all portions of the floor or room to prevent accumulation of vapors. (UFC 7902.5.11.4). *Indicate the air inlet openings, path of air movement, and exhaust location on the plans.* Plan page number: _____.
- 11) Exhaust ventilation shall not be recirculated within the room if the materials stored are capable of emitting hazardous vapors. (UFC 79.203.g). *Indicate where the exhaust ventilation terminates on the plans.* Plan page number: _____.
- 12) Flammable liquid storage rooms shall be protected by an automatic sprinkler system. (UFC 7902.5.11.5.1). *Indicate the sprinkler system and attach calculations to the plans.* Plan page number: _____.
- 13) At least one 20-B portable fire extinguisher shall be located not less than 10' or more than 50' from any Class I or Class II liquid storage area, located outside the liquid storage room. (UFC 7902.5.11.5.2). *Indicate this on the plans.* Plan page number: _____.
- 14) One or more portable fire extinguishers having a rating of not less than 20-B shall be located outside of, but not more than 10' from, the door opening into the liquid storage room. (UFC 7902.5.11.5.2). *Indicate this on the plans.* Plan page number: _____.
- 15) A flammable liquid storage room containing Class I-A liquids shall not be located in a basement. (UFC 7905.11.6). *Indicate this on the plans.* Plan page number: _____.

16) Explosion control or equivalent protection devices shall be provided in accordance with the Building Code when Class I liquids exceeding exempt amounts are stored inside buildings or where explosive vapor-air mixtures could develop under normal operating conditions. *Show the explosion control mechanism on the plans.* Plan page number: _____.

17) Rooms in excess of 500 sq.ft. shall have at least one exterior door approved for fire department access. (UBC 307.1.4). *Indicate the location of the exit on the plans.* Plan page number: _____.

18) Rooms shall be separated from other areas by an occupancy separation having a fire-resistive rating of not less than one-hour for rooms up to 150 sq.ft., and not less than two-hours if larger than 150 sq.ft. (UBC 307.1.4). *Indicate the occupancy separation and materials of construction on the plans.* Plan page number: _____.

19) Shelving, racks and wainscoting in such areas shall be of noncombustible construction or wood not less than 1 inch nominal thickness. (UBC 307.1.4). *Indicate materials of construction on the plans.* Plan page number: _____.

20) If the room equals or exceeds 200 sq.ft., two exits are required. (UBC Table 10-A). *Indicate the exits and their locations on the plans.* Plan page number: _____.

21) Flammable liquid storage rooms are considered H3 occupancies. Contact the Building Official at 650-903-6313 to obtain additional H3 occupancy requirements.